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ABSTRACT

This study at Portland State University (Oregon) combined information from a student database and survey responses to develop an information system for student information, including student experiences, retention, progress toward graduation, and post-graduation experiences. Following implementation of a new curriculum designed to improve student retention and degree completion, the university sought to understand how the student experience had changed. The initial research focused on the development of a descriptive portrait of students in four cohorts: two before and two following implementation of the new curriculum. A survey of entering freshmen was initiated beginning with focus groups in 1991. Annually, a sample of 1000 first-time freshmen and transfer students was surveyed. Input variables included ethnicity, gender, age, student type, Scholastic Aptitude Test scores, and high school grade point average. The data showed that the demographic composition of the student body had not changed but that changes in course-taking patterns, attendance, student satisfaction, and academic integration suggest subtle improvement related to the new curriculum. (JLS)

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TRACKING STUDENT PROGRESS

WITHIN A FRAMEWORK OF CURRICULAR CHANGE

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Jean Endo
Editor
AIR Forum Publications

Tracking Student Progress Within A Framework of Curricular Change

Abstract

A complete revision of the general education curriculum at an urban university has placed new demands on the institutional research office. Internal and external requests for information on the student experience, retention, progress toward graduation, and experiences following graduation have prompted the development of a method for tracking freshmen students, comparing cohorts enrolled before and after the initiation of the new curriculum. The research combines information from the student data base with survey responses. This paper describes the development of that method, initial findings, and the techniques used to disseminate the results of the study to the campus community.

Tracking Student Progress
Within A Framework of Curricular Change

Introduction

In 1992, the Provost of an urban university appointed a faculty committee to undertake a complete revision of the undergraduate curriculum. The curricular change was in keeping with a redefinition of the university's mission to that of an "urban grant" institution that would serve as a center of learning and research for the metropolitan community. In 1994, the institution initiated an interdisciplinary series of courses, replacing the existing distribution requirements for general education.

A poster, showing a man attempting to row a small boat, beached on the sand and containing a rhinoceros, hangs on the wall of the Provost's office. For the faculty and administration, the poster has come to represent the university's efforts toward curricular change. Three years into the program, administrators feel that the boat is, at least, off the sand and in the water. Demands on the institutional research office to produce information on the student experience have increased as administrators and faculty have expressed a need for information on students involved in the new program, prompting the development of a method for tracking students over time. We hope that this information will contribute to their understanding of the direction in which the boat is headed, and of what additional efforts may be needed to keep it on course.

Research Question and Purpose

How has the student experience for undergraduates changed with the implementation of the new general education curriculum, and what evidence of this change can be gleaned from student records and survey responses? The goals of our research are a) to uncover evidence of change between cohorts of students enrolled before and after the implementation of the new curriculum, b) to develop a detailed profile of how students move through the institution under the former and new general education

requirements, and c) to make better use of our existing data resources for policy and planning, including more efficient reporting of information using electronic and print media. The study is longitudinal, tracking cohorts at entry, midpoint, and exit.

Background

The design of the new general education curriculum was influenced by the work of Alexander Astin (1992,1993). Astin's I-E-O (input-environment-outcomes) model, which provides a framework for examining student outcomes, was integral to the design of the new curriculum. In this model, input variables are defined as the characteristics of students at entry to the institution, environmental variables are defined as those factors to which students are exposed while enrolled in the institution, and outcomes variables as the characteristics of students following their exposure to the educational environment (Astin, 1993). Based on a review of this research, the curriculum was designed, in part, to address those factors found by Astin to have a negative effect on student learning outcomes, particularly lack of community and level of involvement with the institution, by increasing the frequency and quality of student-student and faculty-student interactions (General Education Working Group, 1993).

The creation of a "learning community" begins for freshmen in a year-long course taught by interdisciplinary teams of faculty assisted by "peer mentors"--upper-division undergraduate students--who act as liaisons between student and faculty, and who assist with instruction. The philosophy behind the freshman year experience continues through a series of sophomore and upper-division cluster courses, culminating in a senior-year "capstone" experience, which involves interdisciplinary teams of students working on community-based projects.

The institution has experienced low retention and degree completion rates throughout its history. One goal of the new curriculum is create an environment that will encourage students to stay and

complete their degrees, and to do so within a shorter period of time: students typically have taken from five to eight years to complete their undergraduate degrees. Through their experience in the new curriculum, students are expected to be more likely to complete their education at the institution, and less likely to drop out between the first and second year, the time at which attrition is the highest. They are expected to feel greater affiliation with the institution, and to be more satisfied with university services and interactions with university faculty and staff.

Through the interdisciplinary experience, students are expected to be better prepared in the areas of writing, mathematics, oral and graphical communication, and critical thinking, and, thus, better prepared for their major fields of study than students who were enrolled under the distribution requirement. Assessment efforts in the general education program and in pilot projects within a selected group of departments are designed to gather information about student learning across the university curriculum. The philosophy behind the new curriculum is already beginning to spread into the major and liberal studies components of the overall curriculum, reinforcing the positive experience for students begun in their freshman year.

Hypotheses

We examine four hypotheses in this research, based on the goals of the general education curriculum. 1) students enrolled under the new general education requirement will make more rapid progress toward the degree than students enrolled under the distribution model; 2) students will be better prepared and so will earn better grades in upper division courses as a result of the emphasis on critical thinking, communication, group process, and skill development emphasized in the new curriculum; 3) students will develop a better sense of affiliation with the institution as a result of the new curriculum, and will be less likely to drop out between the first and second year; and 4) students will express higher

satisfaction with university programs and services, interactions with staff and faculty, instruction, and campus life under the new curriculum.

Design

Our initial research has focused on the development of a descriptive portrait of students in four cohorts, two before and two following the implementation of the new curriculum. We also have begun exploring the use of Astin's stepwise regression model for predicting retention, using input variables and those environmental variables we have assumed to be related to the goals of the new curriculum. We plan to draw outcomes data on career choice, employment, and the benefits of the undergraduate experience from surveys of graduates; however, since most students graduate following the fifth or sixth year of enrollment, data on the initial cohort--1991--cannot be obtained until summer of 1997, when the survey of 1996 graduates will be administered.

At this stage, our research is exploratory, and we do not expect to draw any firm conclusions about changes resulting from the initiation of the new curriculum. As we move forward with longitudinal tracking of freshmen, we expect that it may be necessary to modify our approach, or to include data from other sources, such as findings of the assessment research in general education and the majors. However, we hope that our initial findings will provide preliminary, comparative information on students enrolled before and after the implementation of the new undergraduate program that will inform faculty and administrators as they plan for continuous improvement of the overall curriculum.

Data Sources

Survey Data

The Entering Student Survey was initiated by the Committee on Undergraduate Student Retention in 1991. It marked the institution's first organized attempt to examine the reasons behind its traditionally

low retention rates. Beginning with focus groups in the spring of 1991, the Committee's research moved to the development of a survey, which has since become a key component of the institution's overall assessment strategy. We obtained content validity for the survey through the development of items based on variables included in Astin's I-E-O model, and from Tinto's (1993) research on retention and attrition. The questionnaire was piloted, refined, and administered in late Fall 1991 to a sample of 1,000 freshmen new from high school and newly enrolled transfer students. This sampling procedure has been used in each of the subsequent years, 1992, 1994, and 1995.

Response rates for each of the four years (which include both new and transfer students) are as follows: 1991, 58%; 1992, 55%, 1994, 48%; and 1995, 40%. The decrease in response rates from 1991 to 1995 may be attributed to several factors; the most important, perhaps, is that growing interest in examining the undergraduate experience has prompted an increase in the number of surveys or interviews conducted by various areas of the institution, often simultaneously. At this time, there is no mechanism for monitoring or coordinating internal research efforts; frequently, the only way to know that surveys are being conducted at the same time is if students report this information themselves. We have alerted the administration to this issue, and initial conversations toward developing a strategy for coordination of data collection efforts have begun.

During 1992, we revised the survey to include a broader range of questions involving student satisfaction with university programs and services. Slight variations have been made to the survey each year, to accommodate changes in the university environment, although a common core of questions has been maintained from year to year. We conducted a principle components analysis on the 1992 survey to examine whether or not the constructs we had intended were actually reflected in the survey. Four factors were revealed, which generally reflected the constructs we had devised, based on Astin and Tinto's

research: Reasons for Attending the Institution, Academic Environment/Satisfaction with Services, Financial Aid/Finances, and Internal/External Supportiveness. We also conducted reliability testing, using Cronbach's Alpha, on the instrument as a whole, and for each of the four factors: for the instrument, a coefficient of .92 was obtained; for Factor 1, α = .87; Factor 2 , α = .88; Factor 3, α = .80; and Factor 4, α = .77. As a result of these procedures, items which exhibited low factor loadings were modified or eliminated to enhance the reliability of the instrument.

Student Data Base

For the purposes of this research, only new full-time freshmen have been included in the tracking model. We generated aggregate data for students who entered the institution during the fall terms of each of the four cohort years for each term of enrollment. These data are derived from the Banner student data base, and include demographic information, test scores, transcripts, grade reports, stop-out and drop-out patterns, and graduation rates.

Methodology

Our first step was to develop a portrait of the new freshman class of each of the cohort years, using input variables drawn from the student data base. The input variables were: ethnicity, gender, age, student type (new from high school, General Education Development--GED--recipients, or those with some college credit), Scholastic Aptitude Test scores, and high school grade point average. We produced general frequencies for each cohort year. Our next step was to examine environmental variables drawn both from survey data and from the student data. Our third step was to examine outcomes variables, specifically, retention after the initial freshman year. As an internal check on whether or not the respondent group was representative of the population, we compared frequency distributions for demographic variables and found that the two groups were generally comparable.

Finally, we explored the use of stepwise regression to predict retention for each cohort year, using input and environmental variables drawn from the student data base and survey responses. We defined retention as a dichotomous dependent variable, with a value of 0 ("not retained") or 1 ("retained") after the first year of enrollment ("retained" includes those enrolled Fall Term of the following year). This method is recommended by Astin (1993), although he notes that some methodologists prefer to use discriminate or logit models with dichotomous dependent variables; we leave the testing of this method to future research.

Findings

Student Portrait

Student demographic characteristics have remained generally stable over the four cohort years. The ethnic make-up of the full-time freshman class has been roughly 65% white; the next largest ethnic group has been Asian, at roughly 14%. The only noticeable change is a near doubling of the percentage of Native American freshmen enrolled 1991 to 1995, from less than 1% to 1.72%, which, however, represents a very small number of students.

Women have represented more than 50% of the full-time freshman class, except in 1994, when the percentage dipped slightly to 49.75%. Ninety percent of full-time freshmen have been 19 years old or younger, representing the traditional age group of freshmen at most institutions; this is in contrast with the university as a whole, for which the average age of students is 28.5 years, and for undergraduates as a whole, for which the average age is 26 years. More than 90% of new freshmen entered the university directly from high school, fewer than 6% were General Education Development (GED) completers, or had some college credit prior to entry. The average high school grade point average for each of the four

cohort years has been 3.1, although the range is broad. The average Scholastic Aptitude Test (SAT) verbal score has hovered just below 500; the SAT math has been 500 or slightly higher.

From the survey data we noted that 50 to 60% of full-time freshmen in each of the four cohorts planned to earn a bachelor's degree at the institution; around 23% indicated that they planned to transfer to another institution, while nearly 20% were unsure of their immediate plans. More than one-third of respondents for each cohort year indicated that they planned to earn a Master's degree at some point in the future. The percentage of students who felt they were either likely or very likely to complete a Bachelor's degree at the university increased from 74% in 1992 to 79% in 1995.

Respondents in all four years indicated that their top concerns upon entering the institution were academic performance and finances. The percentage of respondents who indicated that "program offerings" was an important or very important reason for attending the institution increased from 56% in 1992 to 65% in 1995; the percentage who selected "reputation of programs" as an important or very important reason also increased from 41% in 1992 to 50% in 1995; and the percentage who selected "reputation of the university" also increased, from 36% in 1992 to 42% in 1995. Four all four years, respondents reported that receiving a degree, preparing for a career, increasing potential income, enriching their lives, preparing for a graduate degree, and gaining a broad-based general education were their most important reasons for attending college at this time.

Hypotheses

Hypothesis 1: Students enrolled under the new general education requirement will make more rapid progress toward the degree than students enrolled under the distribution model.

It is still too early to tell whether or not this hypothesis can be upheld. Table 1 reports the academic progress of students retained at the beginning of the second year of study for each of the four

cohorts, and the third year for the 1991, 1992, and 1994 cohorts. The table suggests that the percentage of students enrolled under the new curriculum who move from the freshman to the sophomore level at the beginning of the second year is similar or only slightly higher than the percentage enrolled under the distribution requirement. At the beginning of the third year, the percentage at the junior level increased for the 1994 cohort. However, until third-year data for the 1995 cohort become available, little more can be said.

Table 1

Academic Progress of Retained Students

	Cohort Year			
	Fall 1991	Fall 1992	Fall 1994	Fall 1995
Beginning of 2nd year				
Freshman	60.7	61.0	56.1	60.8
Sophomore	38.8	39.0	43.9	38.7
Junior	0.5	0.0	0.0	0.5
Senior	0.0	0.0	0.0	
Beginning of 3rd year				
Freshman	4.6	4.3	4.7	-
Sophomore	60.3	59.1	52.7	-
Junior	33.4	36.2	42.7	-
Senior	1.6	0.4	0.0	-

Table 2 reports the distribution of credit hours earned at the end of the second year for each of the four cohorts. (Fall 1995 cohort data do not include Spring Term 1997.) This table suggests that students enrolled under the new curriculum are beginning to complete courses in a logical sequence, enrolling in fewer upper division courses at the lower division level than under the distribution requirement, which simply allowed a student to choose courses in no particular order. We cautiously infer that the attempt of the new general education program designers to make the curriculum more meaningful to students, and to

simultaneously remove barriers to their success by streamlining the curriculum, may be working as planned.

Table 2.

Percentage Distribution of Credit Hours Earned on First and Second Year

	Cohort Year			
	Fall 1991	Fall 1992	Fall 1994	Fall 1995
Electives	3	4	4	4
100 level	38	39	40	45
200 level	49	49	47	44
300 level	8	6	7	6
400 level	2	2	2	1
	100	100	100	100

Hypothesis 2: Students will be better prepared and so will earn better grades as a result of the emphasis on critical thinking, communication, group process, and skill development emphasized in the new curriculum.

Table 3 reports grades received in courses taken at the end of the second year for the four cohorts. The results indicate that the percentages of A's received by students enrolled in the new general education curriculum are slightly higher than those received by students enrolled under the distribution requirement, while the percentages of C's are slightly lower; percentages of all other grades are similar for both groups. Table 4 reports mean grade point average, earned hours, attempted hours, and the earned to attempted hour ratio for the four cohorts at the beginning of the second and third year. For the two cohorts enrolled under the new curriculum, the table shows some increase in both term and cumulative grade point average, and in the earned to attempted hour ratio.

Table 3

Percentage Distribution of Credit Hours
Earned on First and Second Year

	Cohort Year			
	Fall 1991	Fall 1992	Fall 1994	Fall 1995
As	24	23	26	31
Bs	28	27	28	27
Cs	21	22	19	15
Ds	5	6	5	4
P	12	12	14	13
F	3	2	2	2
NP	1	1	1	1
Others	5	5	5	7

Table 4

Means of Selected Academic Performance Indicators
at the Beginning of the Second Year

	Cohort Year			
	Fall 1991	Fall 1992	Fall 1994	Fall 1995
Term GPA	2.70	2.60	2.80	2.90
Earned Hours	12.30	12.70	12.90	12.80
Attempted Hours	14.00	14.30	14.20	14.40
Ratio	0.88	0.89	0.91	0.89
CUMGPA	2.70	2.70	2.80	2.93
Total Earned Hours	51.30	52.50	53.70	53.14
Total Attempted Hours	57.80	58.40	59.10	58.41
Ratio	0.89	0.90	0.91	0.91

We cautiously infer from these data that students academic achievement has increased somewhat from 1991 to 1995, and that this may be attributable to the attention being paid to skill development, critical thinking, communication, and group process within the new general education curriculum.

However, firm conclusions cannot be drawn from these data alone; assessment data, which may include more descriptive measures of student achievement, are still lacking.

Hypothesis 3. Students will develop a better sense of affiliation with the institution as a result of the new curriculum, and will be less likely to drop out between the first and second year.

Table 5 reports the attendance patterns for those students who did not return after the first year. For the cohorts enrolled under the new general education requirement, the proportion of students who attempted to complete three full terms before dropping out increased slightly over the previous years. Table 6 reports the attendance pattern of those students who returned after the first year. Although the overall retention rate decreased, the proportion who were in continuous attendance from fall term to fall term increased from 1991 to 1995. For the two cohorts enrolled under the new curriculum, we note a decrease in the percentages of students electing to stop out between the first and second years. While these data are not conclusive, we are encouraged by the increases in the percentages of students who attempt at least three terms before dropping out, and by the decreasing percentage of students who elect to stop out between the first and second years.

Table 5

Term-by-Term Attendance of First-Time Freshman Not Returning for Second Year

	Cohorts			
	Fall 1991	Fall 1992	Fall 1994	Fall 1995
Non-Returning	32%	36%	37%	40%
Fall only	11%	7%	9%	12%
Fall and Winter	3%	7%	7%	9%
Fall, Winter, and Spring	18%	22%	21%	19%

Table 6.

Term-by-Term Attendance of First-Time Freshmen Returning for Second Year

	Cohort Year			
	Fall 1991	Fall 1992	Fall 1994	Fall 1995
Returning	68%	64%	63%	60%
In Continuous Attendance:				
Fall-Winter-Spring-Fall	65%	61%	61%	58%
Stop-outs:	3.00%	2.00%	2.00%	2.00%
Fall-Winter-Fall	1.00%	1.60%	0.70%	0.80%
Fall-Spring-Fall	1.00%	0.90%	0.90%	0.30%
Fall-Fall	1.00%	0.50%	0.40%	0.50%
Continuos Attendance	96%	95%	97%	97%
Stop-Outs	4%	5%	3%	3%

We also looked at measures of academic integration and institutional affiliation gathered through survey responses for the four cohort years. For the 1991 survey, we used a four-point scale to measure agreement with the statements, while in subsequent years, we changed to a five-point scale; therefore, means are directly comparable only for 1992, 1994, and 1995. Table 7 reports mean responses to eight items for which agreement increased between 1992 and 1995. Once again, we are tentatively encouraged by the increase in positive agreement to these statements between the two sets of cohorts. Further analysis is necessary to determine whether or not these increases are statistically significant; due to time and resource constraints, we have had to include this analysis in our plans for future research.

Table 7.

Comparison of Means for Selected Questionnaire Items

Survey Items	Cohort Year					
	Fall 1992			Fall 1995		
	n	M	SD	n	M	SD
I am in classes I wanted to take.	262	3.06	0.74	267	3.90	0.97
I am in at least one class I find intellectually stimulating.	257	3.43	0.66	266	4.28	0.77
PSU is meeting my expectations.	263	2.90	0.91	266	3.46	0.99
PSU cares about me.	246	2.56	1.23	266	2.87	0.95
I am socially comfortable coming onto the campus and going to class.	220	3.00	0.77	265	3.91	0.90
I have met a faculty member I can talk to.	248	2.39	0.97	265	3.56	1.18
I know how to get help with questions or concerns.	255	2.58	0.94	266	3.33	1.11
I have met other students who may become friends.	206	3.03	0.77	266	3.88	0.97

Hypothesis 4: Students will express a higher satisfaction with university programs and services, faculty and staff interactions, instruction, and campus life under the new curriculum.

The Entering Student Survey includes a series of items intended to measure student satisfaction with various aspects of the university. Data from the 1991 survey are not directly comparable with subsequent surveys for all items, as the wording of some items was changed beginning in 1992. We note an increase in satisfaction with financial aid services and application for admissions procedures between 1992 and 1995, and higher perceived supportiveness of students by the university's faculty and staff for cohorts enrolled under the new curriculum.

Regression Analysis

Our research in using regression analysis to predict retention at the institution is in the exploratory stage. Following Astin's recommended method, we created a dichotomous dependent variable (retained, not retained), and entered input and environmental variables into a forward-backward stepwise procedure. At this stage, we had a large number of independent variables, although we attempted to select only those environmental variables--drawn from student survey responses--that we felt had relevance to the goals of the new curriculum. The environmental variables represent four dimensions from the survey: reasons for choosing the institution, reasons for attending college, campus academic and social environment, and social support. The forward-backward method allowed us to obtain results independent of the sequence in which variables were named in the model.

There were a number of limitations to our efforts to use this model. Our survey data were plagued by a large number of missing values for many of the items we hoped to use in the regression equation. Thus, the useable "n" was reduced in most cases to a level that made us uncomfortable with the predictive quality of the model. We regard our findings in this area to date as preliminary, and hope to refine and improve the model in our future research.

We are reporting only the results of the last step of the procedure to illustrate how much variance is explained by each variable, and by all the variables that were found to be significant. The parameter estimates (unstandardized beta coefficients) indicate whether the influence of the independent variable on the dependent variable (retention) is positive or negative. While the findings to this point are interesting, they do not represent a complete predictive model for retention at our institution. Table 8 reports the results of the stepwise procedure. Although the R^2 for each cohort year is low, from our perspective, we noted that for 1994 and 1995, some of the variables included in the equation may be related to improved

social support and clearer intentions in attending the institution. For example, in the 1994 model, "Friends currently at PSU," "Support of fellow students," and "PSU cares about me" are positively related to retention, as is "Program offerings" as a reason for attending the institution; in the 1995 model, "I'm in at least one class I wanted to take" and "Preparation for a career" were included.

Table 8

Summary of Stepwise Regression Procedure for Dependent Variable RETN Using Forward-Backward Method for Four Cohorts

Fall 1991 Cohort		N=145	R**2=.30
Variable Entered/Removed	Number In	Partial R**2	Parameter Estimate
Cost	1	0.06	0.0569
HSGPA	2	0.04	0.2147
Change Careers	3	0.05	0.0699
Life Enrichment	5	0.03	-0.0846
Family Recommendation	6	0.03	0.0579
Move to Portland	7	0.02	-0.0470
Know How to Get Help	8	0.01	0.0864
Intend to Transfer	9	0.01	-0.1473
Gender (Female)	10	0.01	-0.1348
Met Friends at PSU	11	0.01	0.0746

Fall 1992 Cohort		N=66	R**2=.60
Variable Entered /Removed	Number In	Partial R**2	Parameter Estimate
Intent to transfer	1	0.18	-0.6014
Father's Education	2	0.07	0.3261
Stay in Portland	3	0.05	0.0822
Know How to Get Help	4	0.05	0.1832
PSU Cares	5	0.05	-0.2089
Race (Asian)	6	0.07	0.4673
Race (Hispanic)	7	0.04	0.3630
Enrich Life	8	0.03	-0.0880
Met Faculty Member	9	0.03	-0.0961
SAT Math Score	10	0.02	0.0010
Race (Native American)	11	0.02	0.5282

Table 8. (continued)

Fall 1994 Cohort		N=125	R**2=.36
Variable Entered/Removed	Number In	Partial R**2	Parameter Estimate
Program Offerings	1	0.11	0.1188
Friends Currently at PSU	2	0.07	0.1604
CUMGPA	3	0.05	0.1604
Intent to Transfer	4	0.02	-0.2167
Change Careers	5	0.04	0.0936
Support of Friends	6	0.02	-0.1470
Support of Fellow Students	7	0.02	0.1434
Receive College Degree	8	0.02	-0.0736
PSU Cares	9	0.02	0.0653

Fall 1995 Cohort		N=85	R**2=.46
Variable Entered/Removed	Number In	Partial R**2	Parameter Estimate
CUMGPA	1	0.23	0.2728
Race (Asian)	2	0.06	-0.0456
In Classes Wanted	3	0.06	0.0835
Grad Professional	4	0.06	-0.1752
Gender (Female)	5	0.03	0.1566
Prepare for Career	6	0.02	0.1192
Hours Work	7	0.02	-0.0611

Conclusions

While our research is still preliminary, we have noticed a few interesting changes between the cohorts of full-time freshmen enrolled before and after the implementation of the new general education curriculum. Although the demographic composition of the student body has not changed, data on course-taking patterns, grades, continuity of attendance, satisfaction with university programs and services, and academic and social integration suggest subtle changes that may relate to the goals of the new curriculum

We are cautiously optimistic that positive change is occurring; however, continued research is needed before firm conclusions can be drawn.

This research places institutional research at the core of decision making for curricular change at an urban university. The role of institutional research offices in supplying information to administrators, faculty, and other members of the campus community is becoming increasingly important nationally, as institutions look for creative ways to do more with less. Included in our research plan is a method for disseminating findings to the campus community. We will provide period reports on the longitudinal study and the ongoing survey research in both printed and electronic formats. A team of graduate students has been assigned to develop research briefs for presentation on the World Wide Web site maintained by the institutional research office. Our goal is to make the research findings widely available to the campus. We hope to continue to make better use of data routinely collected by the institutional research office, and to disseminate that information to decision makers and others involved in the instructional mission of the institution.

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